The Hidden Gut Disorder Causing Fatigue, Pain, Autoimmune Disease, Dementia, Alzheimer's, Skin Conditions, and Hormonal Problems

MARTIN CLINIC

In this report, I'm going to show you one of the most important things you can do for your brain, weight, hormones, immune system, skin, sleep, and joints.

It's also one of the best things you can do to fight against the ageing process.

Leaky Gut Syndrome — The Silent Killer

Leaky gut syndrome is a huge problem today. In fact, it is often referred to as a silent killer.

Here's why…

Look at the top causes of death today…

Heart disease
Stroke
COPD
Alzheimer's
Diabetes
Cancer

Our family clinic has had it's doors open for over 100 years.

But that isn't the most amazing thing about it.

The most amazing thing is, of the tens of thousands of people who have come through our doors, 2 things stand out as common between all of them.

Here's two facts that I found over and over again…

1. No one goes to bed healthy wakes up with a disease in the morning…
2. The body is constantly leaving clues as it moves from health towards disease…

So what does this mean?

It means that there is a clear path between health and disease and along this path your body is leaving breadcrumbs as clues for you to pick up.

We've all heard the story of the Titanic. Poor visibility lead to them crashing into an iceberg and the rest is history.

But did you know that the Titanic had received **SEVEN warnings** from other ships that were already in the midst of all the ice?

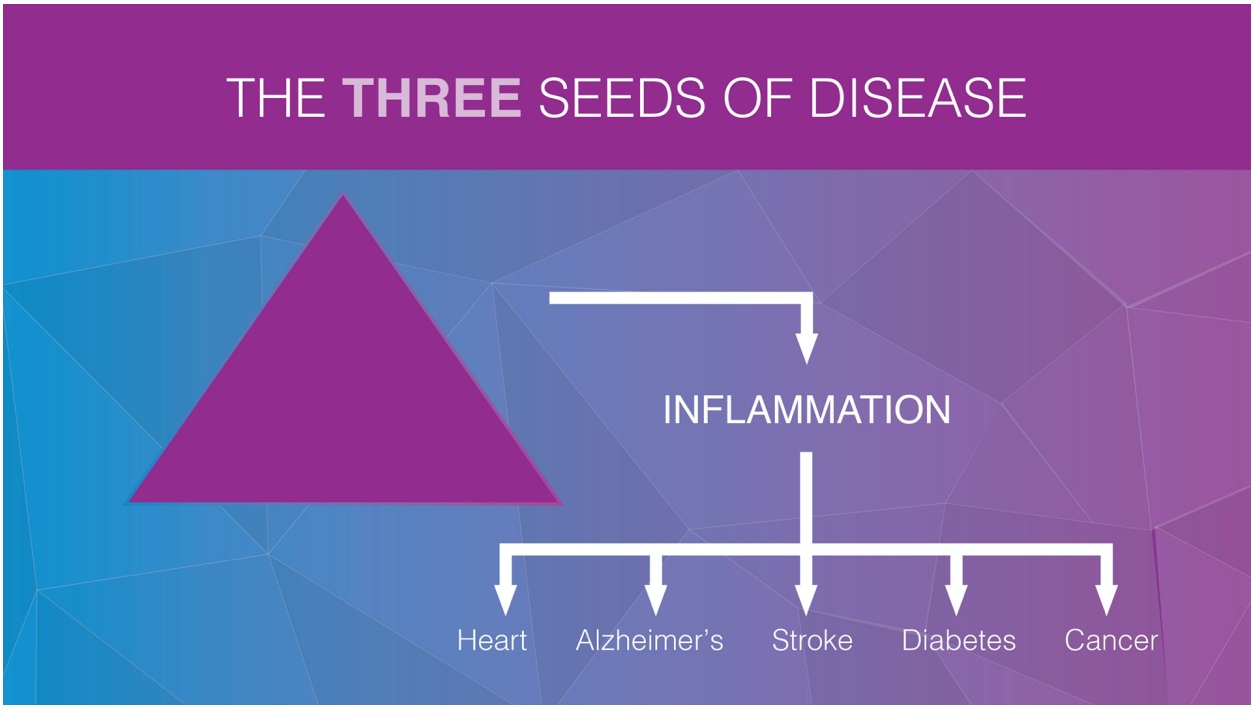
That means that the captain of the Titanic KNEW there were rocky waters ahead, ignored the warnings and continued on anyways.

Why do I bring this up?

Because unfortunately this is how most of us are treating our health.

Our body is sending us warning signs all the time. Low energy, high blood pressure, poor sleep, weight gain are a few examples.

But too many of us fail to see these as a major warning signal on the horizon.

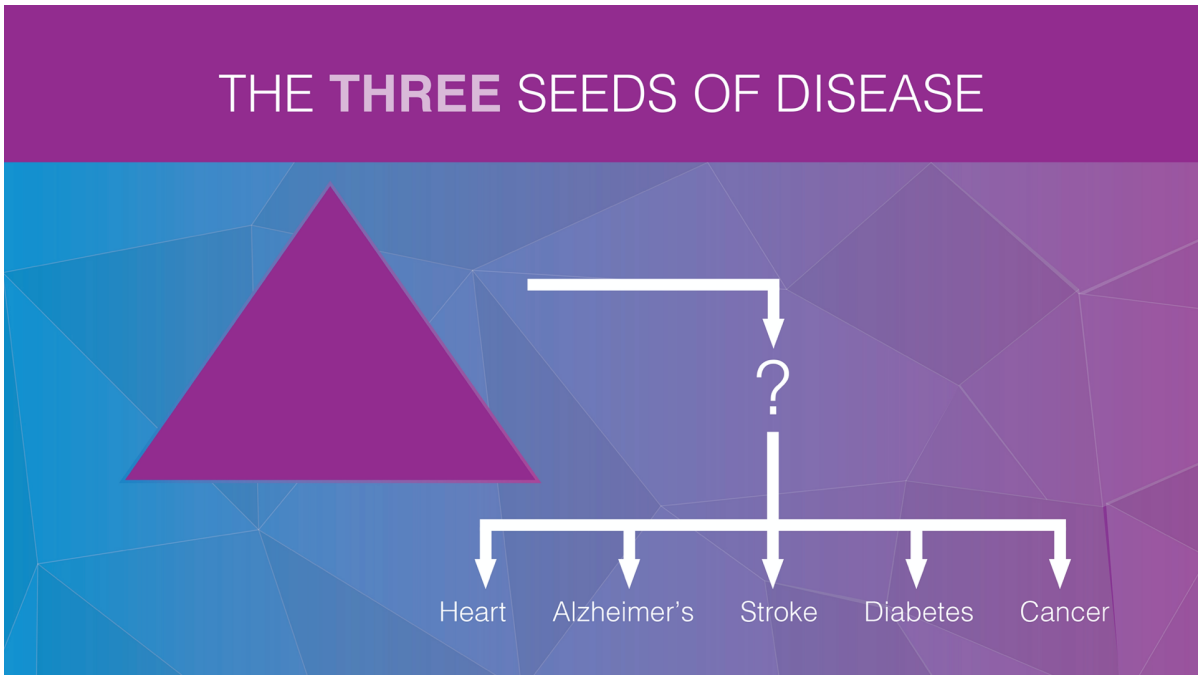


And then one day, it's too late. Your ship (body) crashes into the side of an iceberg. That iceberg could be anything from a serious stroke or heart attack to diabetes or dementia.

The point is that, if you're not watching the warning signs, then you're at risk.

And, Leaky Gut Syndrome is a MAJOR warning sign.

The Three Seeds Of All Disease



Let's talk about the top causes of death again…

How do you go from being healthy to heart disease, or Alzheimer's?

How does that happen?

In the graphic below, you'll notice that all the top killers have one thing in common…

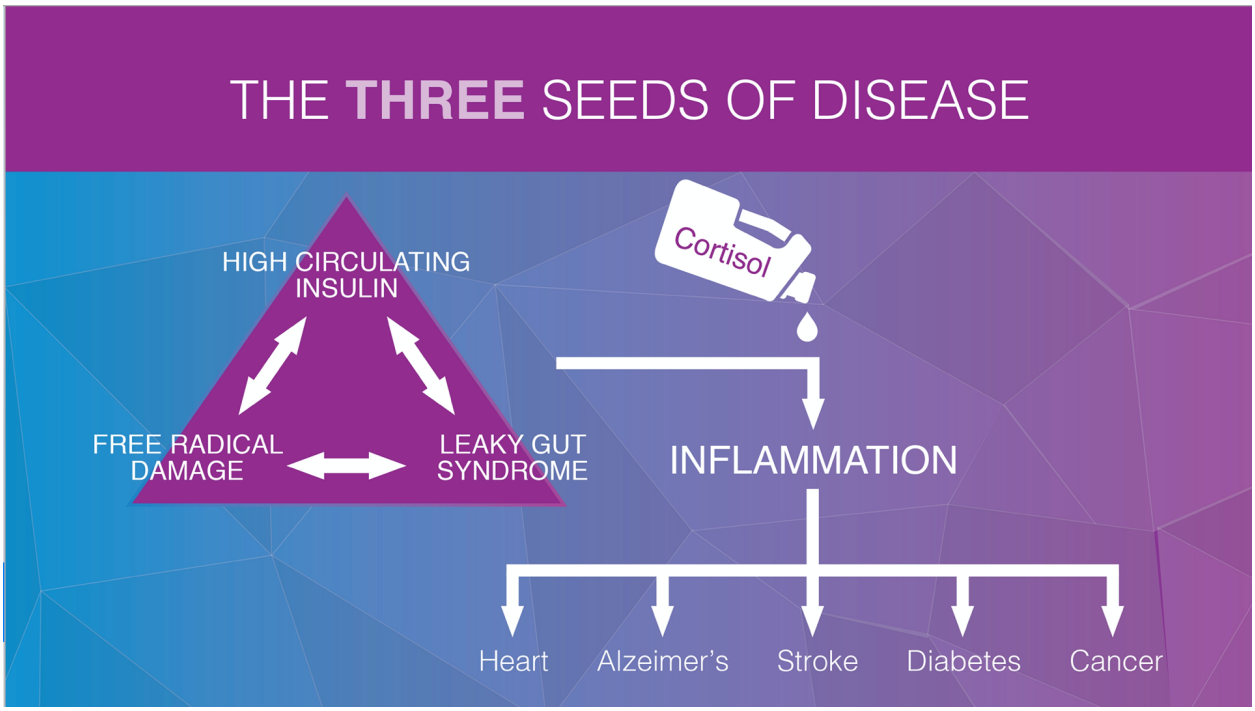
If you were to reverse engineer Heart disease, Alzheimer's, Strokes, Diabetes, and Cancer…

You realize they all contain inflammation.

Inflammation is found in all disease. But inflammation doesn't just magically appear out of thin air.

It doesn't work that way.

Something has to cause it. And this is where the deadly triad of all disease comes in.



Three Causes Of Inflammation.

And one of them, as you can see, is leaky gut syndrome. This means that many of the top killers started off as leaky gut syndrome.

And over time, the inflammation caused by leaky gut syndrome has progressed into something far more serious.

If you take a look at the above graphic again.

You can have leaky gut syndrome over a period of time…

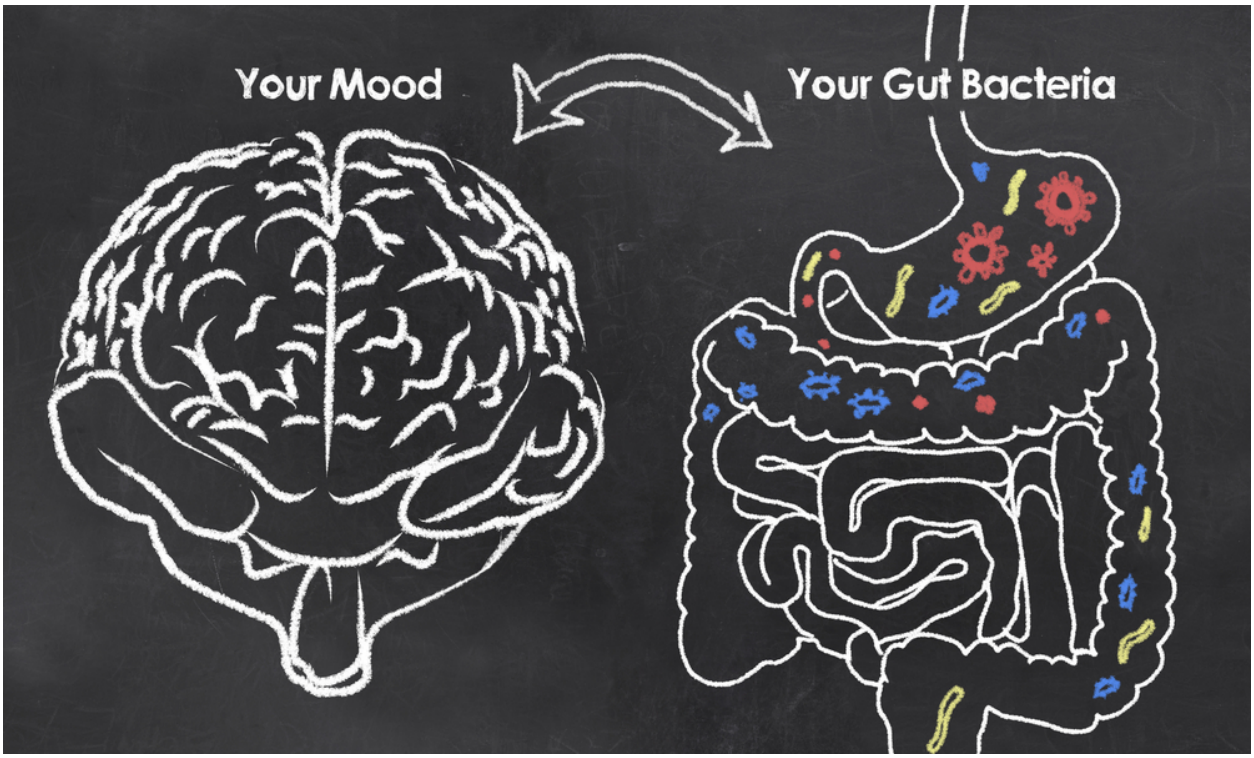
That leads to increasing the levels of inflammation.

And that, for example, in some people may lead to heart disease.

It may attack the blood vessels. It may attack the heart.

There's an old saying that we've been using in the clinic for a long time…

Leaky gut, leaky brain.



Why? Because if you have leaky gut for a long period of time, your brain is going to get leaky as well.

And that could lead to Alzheimer's, it could lead dementia and those kind of issues.

So, here's the problem…

If you have any digestive symptom or disorder, then **you already have leaky gut** syndrome.

But a **majority of people** with leaky gut syndrome have **no** digestive symptoms whatsoever.

Which is another reason why leaky gut syndrome is often called **the silent killer**.

Which means you can have digestive symptoms like chronic diarrhea, constipation, gas, bloating or disorders like IBS, Crohn's or other inflammatory bowel diseases.

Or you can have non-digestive symptoms like **fatigue**, **joint pain**, **hormonal imbalances**, **skin rashes**, **eczema**, **acne**, **depression**, **anxiety**, **dementia**, **Alzheimer's** or any of the **autoimmune disorders** that are out there.

And all of these can be different ways that leaky gut syndrome shows up.

It is different for everybody. Just because you don't have a digestive symptom, does not mean that you don't have leaky gut.

And if you have leaky gut and it's allowed to stay like that for a long period of time, it will lead to more and more inflammation…

and i**nflammation is found in all diseases**.

One more important thing you should know before we move on…

If you have leaky gut…

You also have free radical damage…

And there's a good chance you have **high circulating insulin**, as well.

Again, not always but as a rule of thumb that's a pretty safe bet.

This is why Leaky Gut Syndrome is extremely important that we talk about.

Also…

You may have noticed the hormone cortisol in the graphic as well.

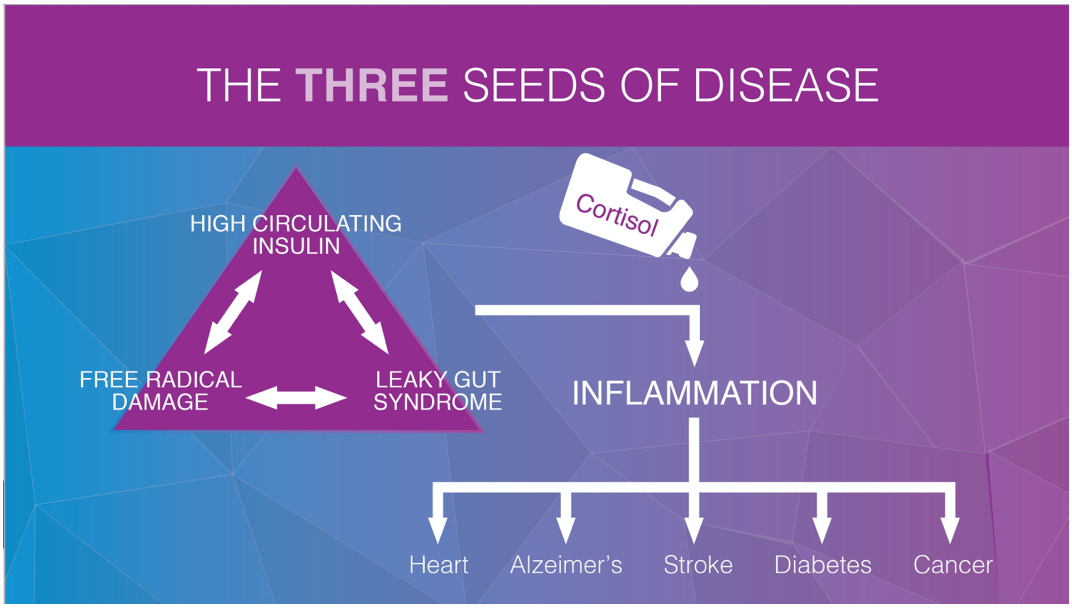
Cortisol is known as the 'stress hormone'.

Cortisol is an accelerant.

An accelerant is something that you, basically, add to a fire to make it burn hotter and bigger.

When you're stressed and you make more cortisol, it's like pouring gasoline on a fire.

Cortisol will increase inflammation levels.



So, if you have any of the three seeds of disease…

and you throw cortisol or high circulating cortisol on top of that it's a train wreck.

And that's how bad things happen.

What Is Leaky Gut Syndrome?

To be honest with you, I don't know if there is a better-named condition out there than Leaky Gut Syndrome…

Because by definition, your gut is literally leaking into your blood vessels.

The contents of the gut are getting into your blood stream which, obviously, should never happen.

Do you remember the old shag carpets from the 70's?

If you were to cut open your small intestines, and look at the inside (with a microscope)…

You'd see what **looks like a shag carpet**.

The small intestine have villi, small finger-like projections that look like shag carpeting on the inside.

There’s two main reasons why you have these villi on the inside of your small intestines.

One is to increase surface area, meaning there's more spots for you to absorb nutrients.

The second reason is the villi help move things along the inside of your intestines.

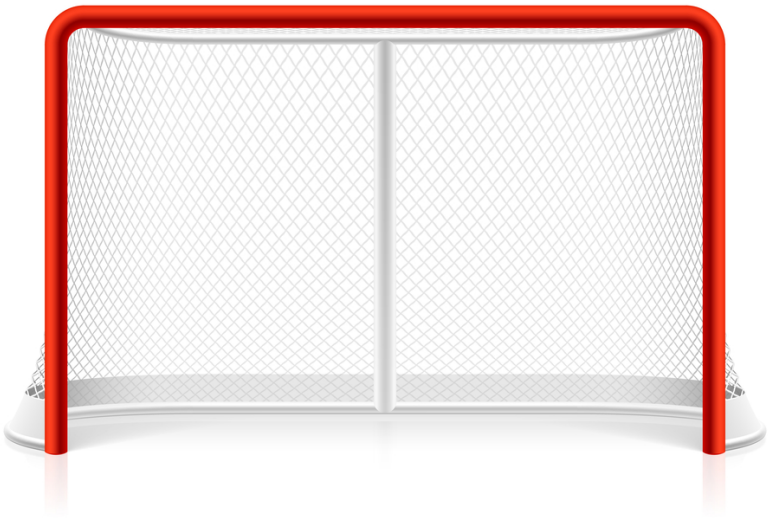
Now, I’d like to tell you a short story (you’ll see the point in a minute).

I grew up in Northern Ontario, and we played a ton of hockey up there.

All year round. It didn't matter if it was 30 degrees outside in the summertime.

Now, for our American friends that's like 80-something Fahrenheit.

It didn't matter, we were always shooting a puck or tennis ball at a net.



Now, we had a neighbour on our street that did not like it when kids walked on his lawn.

Of course, the way we positioned the hockey net was close to his yard.

But, as long as you didn't miss the net with the tennis ball, the mesh net inside would stop it.

However, and it happened every year, because we shot too many tennis balls and pucks into the net…

The mesh netting would rip.

As a result, the ball that we were shooting would find it's way through the net…

The net was no longer doing it's job and it ended up on our neighbours front yard.

That is, basically, the premise behind your bowels.

When you eat food and it's broken down to the very tiniest component…

It goes from your stomach and it ends up into your intestinal track and then it's further broken down and then eventually it's absorbed into your bloodstream.

From your bowels it has to go through the lining of the wall into your blood flow and your blood takes those nutrients everywhere.

The bowel wall is also there to stop stuff that should never get in.

Undigested food should never pass through. It should never fit through the holes in there.

The same with bacteria, viruses, and…

Yeast (candida).

(Did you know there are many studies now showing that yeast is ending up in people's brains. A big percentage of people with Parkinson's have fungus in their brain.

How does it get there?

It gets through the digestive system. It gets there because it gets through the blood. It goes through the bowels into the blood and can even get into your brain)

At the end of the day **Leaky Gut Syndrome means junk is passing through the bowel walls that should never get into the blood.**

Anything you don't need ought to belong in the toilet, and leaky gut allows those toxins, in a microscopic way, to get into the bloodstream and that is how one way you get toxins.

That's how your body becomes toxic. You don't get poisoned overnight with it, but your body starts to deteriorate and leaky gut is a key component in the vast majority of diseases.

In research they call Leaky Gut Syndrome — increased permeability.

Leaky Gut Syndrome is a **failure of the whole digestive system** from top to bottom. Because you have your upper digestive system (your stomach), your liver and gallbladder that are supposed to kill foreign invaders that get in there.

They're supposed to break down proteins before it gets down low enough. It's supposed to break down fat.

It's supposed to break down all these different things. What happens is they don't, so there's a problem there. It could be a stomach acid issue. It could be a gallbladder issue.

Is Your Body’s Check Engine Light On?

Every newer car is basically a computer on wheels.

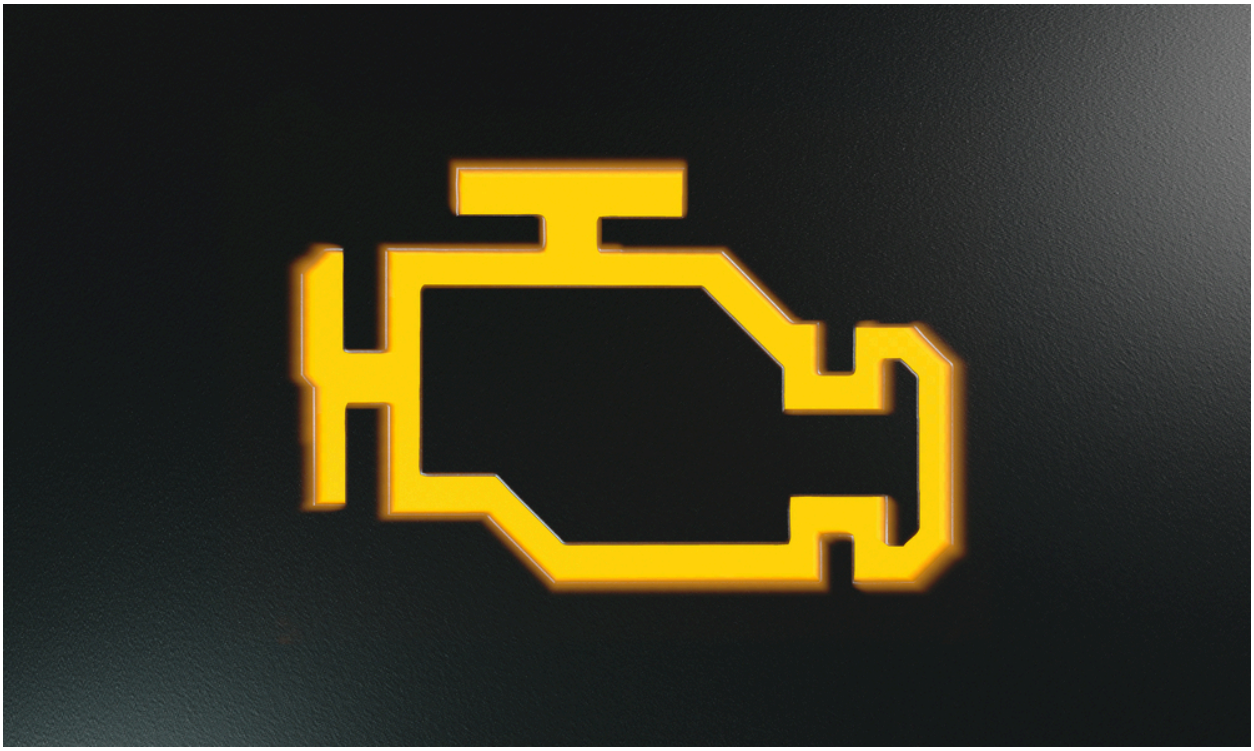
Long gone are the days when you’d see your neighbours fixing their engine or even replacing the spark plugs.

Cars have too many electronics and are impossible to fix on your own.

Cars are also loaded with sensors…

And as soon as any of the sensors pick up a problem…

Your check engine light goes on.



Now…

There are so many things that can trigger the check engine light that in order to figure out the cause you have to plug in a little computer into to the car.

Once plugged in, the computer spits out a code which then tells you what's the source of the problem.

Anything from your gas cap not being tightened properly (I know this from experience) to a simple thermostat problem can all lead to the check engine light being displayed on your dash.

Your body works the same way.

You have many check engine lights.

Symptoms of Leaky Gut Syndrome

You may be wondering if you have leaky gut syndrome.

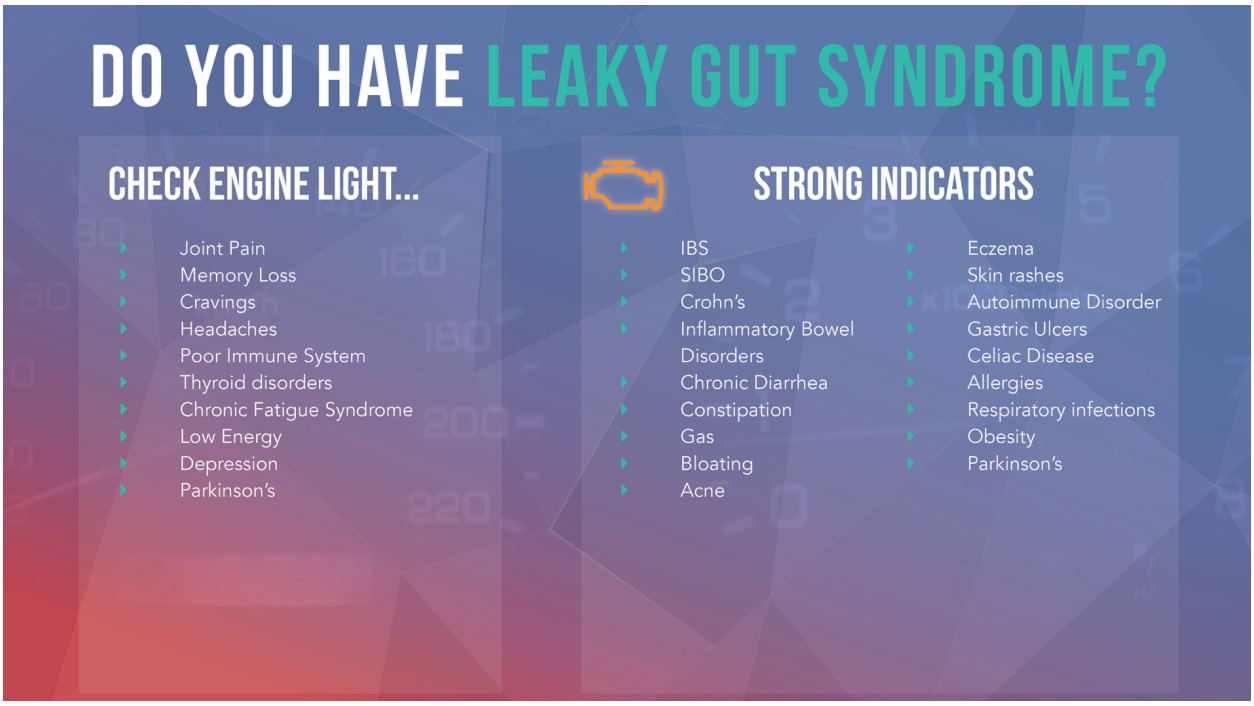
First, a **majority** of people with Leaky Gut Syndrome have **zero digestive symptoms** at all. They don't have any digestive symptoms, or they're so minor they would never attribute that as a digestive symptom.

So, you may be thinking, "Well, I don't have digestive issues, so do I have leaky gut?"

Here's a graphic with possible Leaky Gut Syndrome Symptoms.

On the left of the graph are check engine light indicators. This means the symptoms can point to other conditions as well.

On the right are the strong indicators that you have leaky gut syndrome.



Top 7 Causes Of Leaky Gut Syndrome

ANTIBIOTICS

At this point, I should probably explain what the microbiome is. The microbiome is interesting.

It's a fancy way of saying the collection of bacteria that lives in you, on you, everywhere. You need it to survive. It's absolutely necessary.

In fact, a lot of researchers talk about the **microbiome as another organ**. That organ, like anything else, has to be healthy. If your microbiome isn't healthy you're not healthy.

Antibiotics wipe out your microbiome.

Antibiotics is the greatest discovery of the 20th Century — it saved millions and millions of people's lives.

So, I'm not against antibiotics. If you have an infection and you need an antibiotic they will save your life.

But, antibiotics are a double-edged sword.

The problem with antibiotics, first of all, is the overuse of antibiotics and now you have all these super bugs.

But, the biggest problem is that it destroys all your friendly bacteria. You have a war going on in your gut between good and bad bacteria.

If kill all the bacteria, good and bad, with antibiotics

The bad bacteria proliferates, and yeast especially, which is always present a little bit in the gut, will take off and it will multiply like rabbits. And yeast, fungus, or Candida albicans, becomes systemic because it leaks into the blood stream because you don't have the barrier that you need.

There's two things that I find interesting when we talk about antibiotics and your gut.

The first thing is research has shown that it could take up to a year after antibiotics for most of your microbiome to come back; however, some of them may never come back.

The second thing is, they found that after an antibiotic treatment there is a fingerprint of that antibiotic that stays. They call it a micro toxin.

STRESS

Stress is a major cause of a problem with your microbiome.

Stress increases inflammation. It irritates the gut lining and messes with other hormones in the gut.

ANTI - INFLAMMATORIES

Many medications alter your microbiome, and not in a good way.

PLASTICS

Plastics are absolutely everywhere.

Plastic pollution is so widespread that fibres are even found in household dust and the air we breathe.

If you live on Earth and you are breathing, then you are interacting with plastics all the time.

One of the problems with that is that **plastics disrupt your microbiome**. Not only do they disrupt your microbiome, but many of the plastics that we come into contact with are what they call xenoestrogens.

That's a fancy way of saying they mimic estrogen — also not good at all.

VEGETABLE OILS

Just because it has the word vegetable in it, doesn't mean it's good for you.

In fact, we hate vegetable oils.

No only are they a major cause of symptoms for autoimmune disorders, but they absolutely destroy the health of your gut.

I think a big reason why there is such a proliferation of leaky gut syndrome and IBS today is because of the amount of vegetable oils we consume today.

SWEETENERS

We evaluate sweeteners on a few criteria.

One, do sweeteners cause an insulin response?

Two, do they cause a blood sugar response?

Three, do sweeteners kill your good bacteria?

A lot of that information on sweeteners is starting to come out.

Sometimes you don't have an answer to one, or two, or three of those things.

But, a lot of sweeteners absolutely destroy your microbiome.

EMULSIFIERS

Emulsifiers are food additives…

And, they're in almost everything we eat.

They're in everything from breads to most processed foods, ice cream, margarine (which you shouldn't be eating anyways). But, they're in so many foods.

A lot of people have IBS because of the emulsifiers.

The Dangers Of Leaky Gut

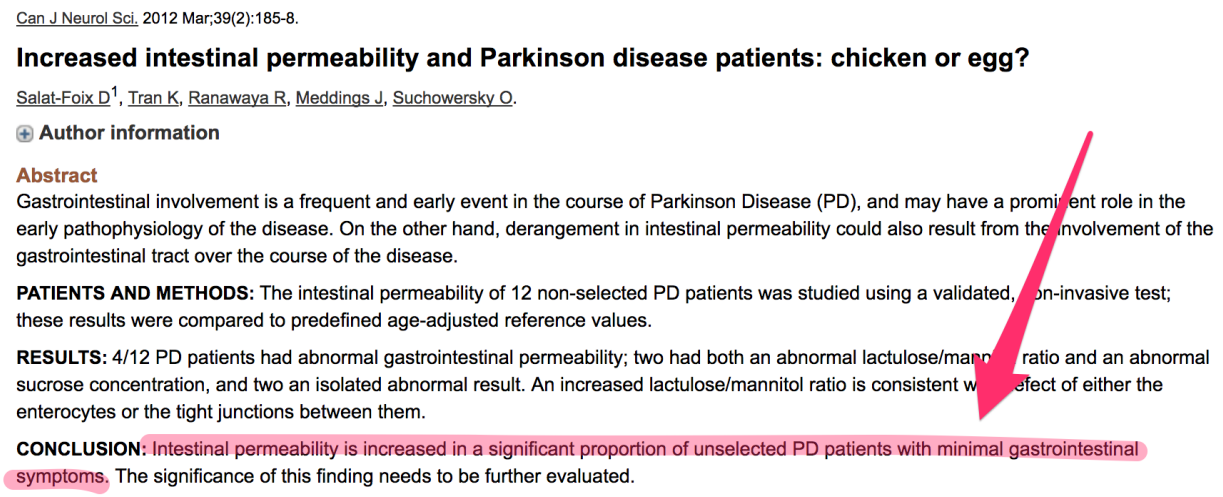
Here's why leaky gut matters — your gut is connected to absolutely everything.

Most people have heard this already, "All disease begins in the gut."

It's true.

GUT - BRAIN CONNECTION

In research there's something called a **gut-brain axis**. The health of your gut will directly impact the health of your brain.



Can J Neurol Sci. 2012 Mar;39(2):185-8.

Increased intestinal permeability and Parkinson disease patients: chicken or egg?

Salat-Foix D[1], Tran K, Ranawaya R, Meddings J, Suchowersky O.

Author information

Abstract

Gastrointestinal involvement is a frequent and early event in the course of Parkinson Disease (PD), and may have a prominent role in the early pathophysiology of the disease. On the other hand, derangement in intestinal permeability could also result from the involvement of the gastrointestinal tract over the course of the disease.

PATIENTS AND METHODS: The intestinal permeability of 12 non-selected PD patients was studied using a validated, non-invasive test; these results were compared to predefined age-adjusted reference values.

RESULTS: 4/12 PD patients had abnormal gastrointestinal permeability; two had both an abnormal lactulose/mannitol ratio and an abnormal sucrose concentration, and two an isolated abnormal result. An increased lactulose/mannitol ratio is consistent with defect of either the enterocytes or the tight junctions between them.

CONCLUSION: Intestinal permeability is increased in a significant proportion of unselected PD patients with minimal gastrointestinal symptoms. The significance of this finding needs to be further evaluated.

Also, you should know your gut is literally your second brain. Your gut makes more neurotransmitters than your brain does. That's hard for people to understand. There are over 100 million brain cells located in your gut.

Did you know your gut is the only organ that can function without any oversight from your brain. It will just do it's thing, which is amazing to think about.

95% of your serotonin is made by your gut.

Researchers connect brain blood vessel lesions to intestinal bacteria

Thursday, May 18, 2017

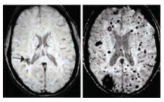
NIH-funded pre-clinical study links gut microbes and the immune system to a genetic disorder that can cause stroke and seizures

A study in mice and humans suggests that bacteria in the gut can influence the structure of the brain's blood vessels, and may be responsible for producing malformations that can lead to stroke or epilepsy. The research, published in *Nature*, adds to an emerging picture that connects intestinal microbes and disorders of the nervous system. The study was funded by the National Institute of Neurological Disorders and Stroke (NINDS), a part of the National Institutes of Health (NIH).

Cerebral cavernous malformations (CCMs) are clusters of dilated, thin-walled blood vessels that can lead to seizures or stroke when blood leaks into the surrounding brain tissue. A team of scientists at the University of Pennsylvania investigated the mechanisms that cause CCM lesions to form in genetically engineered mice and discovered an unexpected link to bacteria in the gut. When bacteria were eliminated the number of lesions was greatly diminished.

"This study is exciting because it shows that changes within the body can affect the progression of a disorder caused by a genetic mutation," said Jim I. Koenig, Ph.D., program director at NINDS.

The researchers were studying a well-established mouse model that forms a significant number of CCMs following the injection of a drug to induce gene deletion. However, when the animals were relocated to a new facility, the frequency of lesion formation decreased to almost zero.



CCM lesions in the human brain

MRIs of healthy (left) and a patient with a mutation that increases CCM formation (right). These lesions can cause blood to leak into the tissue.

Photo courtesy of Kahn lab

TOCIN

Here's why that's important. When you're happy you have a lot of serotonin floating through and then lower dopamine and oxytocin. If a majority of your serotonin is made in your gut, if your gut is healthy, you're generally happy.

If your gut isn't healthy, it's very tough to get the serotonin levels you need to get up to that happiness factor.

Below is a study looking at the effect that your microbiome has on the development of dementia. A major cause of dementia is neuroinflammation. A lot of that comes from the actual gut.

Gut bacteria could be blamed for obesity, diabetes

Date: October 29, 2015

Source: Penn State

Summary: An excess of bacteria in the gut can change the way the liver processes fat and could lead to the development of metabolic syndrome, according to health researchers. Metabolic syndrome is a group of conditions including obesity, type 2 diabetes, high blood pressure, high blood sugar and excess body fat around the waist. People experiencing three or more of these conditions are considered to have metabolic syndrome and are vulnerable to liver and heart diseases. Approximately 20 to 25 percent of adult Americans have the syndrome.

Even in Parkinson's they found increased permeability.

Researchers found leaky gut in a significant proportion of Parkinson's patients. In the study below, notice they had minimal GI symptoms.

Diabetes Metab. 2017 Apr;43(2):163-166. doi: 10.1016/j.diabet.2016.09.004. Epub 2016 Oct 10.

Increased intestinal permeability as a risk factor for type 2 diabetes.

Cox AJ[1], Zhang P[2], Bowden DW[3], Devereaux B[4], Davoren PM[5], Cripps AW[2], West NP[6].

Author information

Abstract

AIM: Relationships between the intestinal microbiota, intestinal permeability and inflammation in the context of risk for obesity-associated disease continue to be of interest. The aim of the study was to examine the associations between intestinal permeability and type 2 diabetes (T2D).

METHODS: A total of 130 individuals with T2D (age: 57.5±6.2 years (mean±SD); BMI: 30.4±3.2; 45% female) and 161 individuals without T2D (age: 37.4±12.5 years; BMI: 25.1±3.9; 65% female) were included in the study. Assessment of intestinal permeability included measurement of circulating lipopolysaccharide (LPS), LPS-binding protein (LBP) and intestinal fatty acid binding protein (iFABP) concentrations, which were used for calculation of a derived permeability risk score (PRS). Associations between permeability measures and T2D status were assessed using logistic regression models.

RESULTS: LBP (~34%, P<0.001), iFABP (~46%, P<0.001) and the PRS (~24% P<0.001) were all significantly higher in the T2D affected individuals. Individuals with a PRS in the upper tertile were 5.07 times more likely (CI: 1.72-14.95; P=0.003) to have T2D when models were adjusted for age, sex and BMI. There was a trend towards improved prediction when including the PRS in models containing age, sex and BMI (AUC: 0.954 versus 0.962; P=0.06).

CONCLUSION: These data demonstrate differences in measures of intestinal permeability between individuals with and without T2D. The utility of using intestinal permeability measures as a tool for predicting T2D risk in at risk individuals should be further investigated.

In the study, you have a bunch of people that have been diagnosed with Parkinson's that have leaky gut, and they have no digestive symptoms, or minimal GI symptoms. It's important to understand that.

J Crohns Colitis. 2010 Sep;4(3):257-68. doi: 10.1016/j.crohns.2009.11.005. Epub 2009 Nov 30.

The joint-gut axis in inflammatory bowel diseases.

Brakenhoff LK[1], van der Heijde DM, Hommes DW, Huizinga TW, Fidder HH.

Author information

Abstract

Inflammatory bowel diseases, Crohn's disease and ulcerative colitis, are associated with a variety of extraintestinal manifestations. The most common extraintestinal manifestation, articular involvement, occurs in 16% to 33% of inflammatory bowel disease patients. These arthropathies may increase morbidity, resulting in a worse quality of life compared with inflammatory bowel disease patients without arthropathies. Thus, arthropathies in inflammatory bowel diseases represent a major medical problem in these patients. Arthritis associated with inflammatory bowel diseases is one of the diseases captured under the umbrella of spondyloarthritis. Spondyloarthritis is a group of inflammatory diseases with overlapping features and is linked to Human Leukocyte Antigen-B27. Arthropathy in inflammatory bowel diseases is clinically divided into peripheral and axial involvement. Peripheral arthritis often flares with relapses of bowel disease resulting in a different treatment approach than axial arthritis in which the course is independent of inflammatory bowel disease activity. Definitions, prevalence, pathophysiology and treatment of the arthropathies commonly seen in inflammatory bowel diseases such as peripheral arthritis, dactylitis, enthesitis, arthralgia, sacroiliitis, inflammatory back pain and ankylosing spondylitis are summarized.

Below is research talking about the effect that the microbiome has on blood vessel integrity which, again, would lead to the increase of strokes.

GUT - OBESITY CONNECTION

Researchers are studying the link between your microbiome, body weight, and glucose metabolism in humans.

Small intestinal bacterial overgrowth in rosacea: clinical effectiveness of its eradication.

Parodi A[1], Paolino S, Greco A, Drago F, Mansi C, Rebora A, Parodi A, Savarino V.

Author information

Abstract

BACKGROUND & AIMS: To better understand the role of small intestinal bacterial overgrowth (SIBO) in rosacea, we aimed to assess the presence of SIBO in patients with rosacea and the clinical effectiveness of its eradication.

METHODS: We enrolled 113 consecutive rosacea ambulatory patients (31 M/82 F; mean age, 52 +/- 15 years) and 60 healthy controls who were sex- and age-matched. Patients and controls underwent lactulose and glucose breath tests (BTs) to assess the presence of SIBO. Patients positive for SIBO were randomized to receive rifaximin therapy (1200 mg/day for 10 days) or placebo. A group of patients with negative BTs were also treated with rifaximin. Eradication was assessed 1 month after the end of therapy. Two dermatologists, unblinded on therapy, evaluated rosacea patients before and after treatment on the basis of an objective scale.

RESULTS: The prevalence of SIBO was higher in patients than controls (52/113 vs 3/60, P < .001). After eradication, cutaneous lesions cleared in 20 of 28 and greatly improved in 6 of 28 patients, whereas patients treated with placebo remained unchanged (18/20) or worsened (2/20) (P < .001). Placebo patients were subsequently switched to rifaximin therapy, and SIBO was eradicated in 17 of 20 cases. Fifteen had a complete resolution of rosacea. After antibiotic therapy, 13 of 16 patients with negative BTs for SIBO remained unchanged, and this result differed from SIBO-positive cases (P < .001).

CONCLUSIONS: This study demonstrated that rosacea patients have a significantly higher SIBO prevalence than controls. Moreover, eradication of SIBO induced an almost complete regression of their cutaneous lesions and maintained this excellent result for at least 9 months.

They're finding out that your microbiome plays a role in glucose metabolism, even in estrogen metabolism.

J Dermatol Sci. 1991 Jul;2(4):324-6.

Intestinal permeability in patients with psoriasis.

Humbert P[1], Bidet A, Treffel P, Drobacheff C, Agache P.

Author information

Abstract

A possible relationship between intestinal structure and function in the pathogenesis of psoriasis has recently brought about considerable interest. The purpose of this study was to evaluate the intestinal permeability in psoriatic patients by comparing it with healthy controls. 15 psoriatic patients and 15 healthy volunteers entered the study. Intestinal permeability was evaluated using the 51Cr-labeled EDTA absorption test. The 24-h urine excretion of 51Cr-EDTA from psoriatic patients was 2.46 +/- 0.81%. These results differed significantly from controls (1.95 +/- 0.36%; P less than 0.05). The difference in intestinal permeability between psoriatic patients and controls could be due to alterations in the small intestinal epithelium of psoriatics.

GUT - DIABETES CONNECTION

If you have leaky gut you're at risk for diabetes, again because it does affect glucose metabolism.

GUT - JOINT CONNECTION

Gut microbes contribute to age-associated inflammation, mouse study shows

Date: April 12, 2017

Source: Cell Press

Summary: Inflammation increases with age and is a strong risk factor for death in the elderly, but the underlying cause has not been clear. A new study reveals that gut microbes are one of the culprits behind age-associated inflammation and premature death in mice. Imbalances in the gut microbes in older mice cause the intestines to become leaky, allowing the release of bacterial products that trigger inflammation and impair immune function.

There's a strong connection between gut health and joint pain.

GUT - SKIN CONNECTION

There's a term we use in our clinic, **"leaky gut = leaky skin"**.

Dig Liver Dis. 2006 Oct;38(10):732-6. Epub 2006 Jul 31.

Intestinal permeability in patients with adverse reactions to food.

Ventura MT[1], Polimeno L, Amoruso AC, Gatti F, Annoscia E, Marinaro M, Di Leo E, Matino MG, Buquicchio R, Bonini S, Tursi A, Francavilla A.

Author information

Abstract

BACKGROUND: An abnormal intestinal permeability could contribute to establish an altered sensitivity to food-allergen.

AIM: To evaluate the intestinal permeability in subjects with adverse reactions to food on allergen-free diet.

SUBJECTS: Twenty-one patients with food allergy and 20 with food hypersensitivity on allergen-free diet were enrolled and divided in four groups according to the seriousness of their referred clinical symptoms when they were on a free diet.

METHODS: Intestinal permeability was evaluated by Lactulose/Mannitol ratio urinary detection determined by anion-exchange chromatography.

RESULTS: Statistically significant different Lactulose/Mannitol ratio was evidenced in subjects with food allergy (p=0.003) or hypersensitivity (p=0.0008) compared to control patients. The correlation between Lactulose/Mannitol ratio and the seriousness of clinical symptoms, by using Spearman test, was statistically significant for food allergy (p=0.0195) and hypersensitivity (p=0.005) patients.

CONCLUSIONS: The present data demonstrate that impaired intestinal permeability, measured in our conditions, is present in all subjects with adverse reactions to food. In addition, for the first time, we report a statistically significant association between the severity of referred clinical symptoms and the increasing of Intestinal Permeability Index. These data reveal that intestinal permeability is not strictly dependent on IgE-mediated processes but could better be related to other mechanisms involved in early food sensitisation, as breast-feeding, or microbial environment that influence the development of oral tolerance in early infancy.

Leaky Gut affects your epidermal barriers, which again makes your skin way more susceptible to a whole bunch of things, such as acne. Skin is the largest organ. It only makes sense healthy skin needs a healthy gut.

Leaky Gut causes Rosacea

Leaky Gut is a major cause of Psoriasis

GUT - ANTI-AGEING CONNECTION

Sleep loss tied to changes of the gut microbiota in humans

UPPSALA UNIVERSITY

SHARE PRINT E-MAIL

Results from a new clinical study conducted at Uppsala University suggest that curtailing sleep alters the abundance of bacterial gut species that have previously been linked to compromised human metabolic health. The new article is published in the journal *Molecular Metabolism*.

Changes in the composition and diversity of the gut microbiota have been associated with diseases such as obesity and type-2 diabetes in humans. These diseases have also been linked with chronic sleep loss. However, it is not known whether sleep loss alters the gut microbiota in humans. With this in mind, Christian Benedict, associate professor of neuroscience, and Jonathan Cedernaes, M.D., Ph.D, both from Uppsala University, collaborated with researchers from the German Institute of Human Nutrition Potsdam-Rehbruecke. In their study, the researchers sought to investigate in nine healthy normal-weight male participants whether restricting sleep to about four hours per night for two consecutive days as compared with conditions of normal sleep (about 8 hours of sleep opportunity) may alter the gut microbiota in humans.

Gut epithelial barrier markers in patients with obstructive sleep apnea.

Barceló A[1], Esquinas C[2], Robles J[3], Piérola J[4], De la Peña M[5], Aguilar I[3], Morell-Garcia D[6], Alonso A[5], Toledo N[7], Sánchez-de la Torre M[8], Barbé F[8].

Author information

Abstract

BACKGROUND: Obstructive sleep apnea (OSA) is now being recognized as an additional contributing factor to the pathogenesis of obesity-related comorbidities. At the same time, there is now increasing evidence to suggest that intestinal wall permeability plays a role in the development of metabolic syndrome. In the present study, circulating zonulin and fatty acid binding protein (I-FABP) were measured in association with metabolic, hepatic, and inflammatory parameters.

RESULTS: Compared with controls, plasma I-FABP levels were significantly higher in patients with OSA (571 pg/mL [IQR 290-950] vs 396 pg/mL [IQR 234-559], $p = 0.04$). Zonulin levels were similar between groups. Significant relationships were observed between zonulin levels and waist circumference ($p < 0.05$), glucose ($p < 0.05$), and insulin ($p < 0.05$). In addition, in the OSA group, zonulin levels correlated negatively with the mean nocturnal oxygenation saturation ($p < 0.05$) and positively with total cholesterol ($p < 0.05$), alanine aminotransferase (ALT) ($p < 0.005$), aminotransferase (AST) ($p < 0.01$), gamma glutamyltransferase (GGT) ($p < 0.005$), and high-sensitivity C-reactive protein (hs-CRP) ($p < 0.05$). Multivariate analysis showed that associations between zonulin and ALT, AST, and hs-CRP were attenuated, but not eliminated, after adjustment for other variables.

CONCLUSIONS: The results of this study suggest that OSA is a risk factor for intestinal damage, regardless of metabolic profile, and that intestinal permeability might be a possible contributor to nonalcoholic fatty liver disease in patients with OSA.

One often overlooked effect of having chronic Leaky Gut Syndrome is premature ageing.

As mentioned before, leaky gut syndrome causes inflammation. And, inflammation is a primary cause of ageing.

GUT - ALLERGY CONNECTION

Here's a couple of studies on food allergies.

Researchers found people that have food allergies all had increased permeability — leaky gut syndrome. They found impaired intestinal permeability is present, and I highlighted below, in all subjects with adverse food reactions to food.

The microbiome-systemic diseases connection.

van der Meulen TA[1], Harmsen H[2], Bootsma H[3], Spijkervet F[4], Kroese F[3], Vissink A[4].

Author information

Abstract

The human microbiome consists of all microorganisms occupying the skin, mucous membranes and intestinal tract of the human body. The contact of the mucosal immune system with the human microbiome is a balanced interplay between defence mechanisms of the immune system and symbiotic or pathogenic microbial factors, such as microbial antigens and metabolites. In systemic autoimmune diseases (SADs) such as rheumatoid arthritis, systemic lupus erythematosus and Sjögren's syndrome, the immune system is deranged to a chronic inflammatory state and autoantibodies are an important hallmark. Specific bacteria and/or a dysbiosis in the human microbiome can lead to local mucosal inflammation and increased intestinal permeability. Proinflammatory lymphocytes and cytokines can spread to the systemic circulation and increase the risk of inflammation at distant anatomical sites, such as the joints or salivary glands. Increased intestinal permeability increases antigen exposure and the risk of autoantibody production. If the human microbiome indeed plays such a critical role in SADs, this finding holds a great promise for new therapeutic strategies, such as diet interventions and probiotics and prebiotics. This review provides a background on the human microbiome and mucosal immunity in the gut and oral cavity and gives a summary of the current knowledge on the microbiome-SADs connection.

If you have any kind of food sensitivity or adverse reaction to food, you have Leaky Gut Syndrome.

GUT - SLEEP CONNECTION

Sleep loss tied to the gut health in humans, right. Again, sleep apnea, two biggest causes in our opinion of sleep apnea ...

... high circulating insulin and Leaky Gut Syndrome.

GUT - AUTOIMMUNE CONNECTION

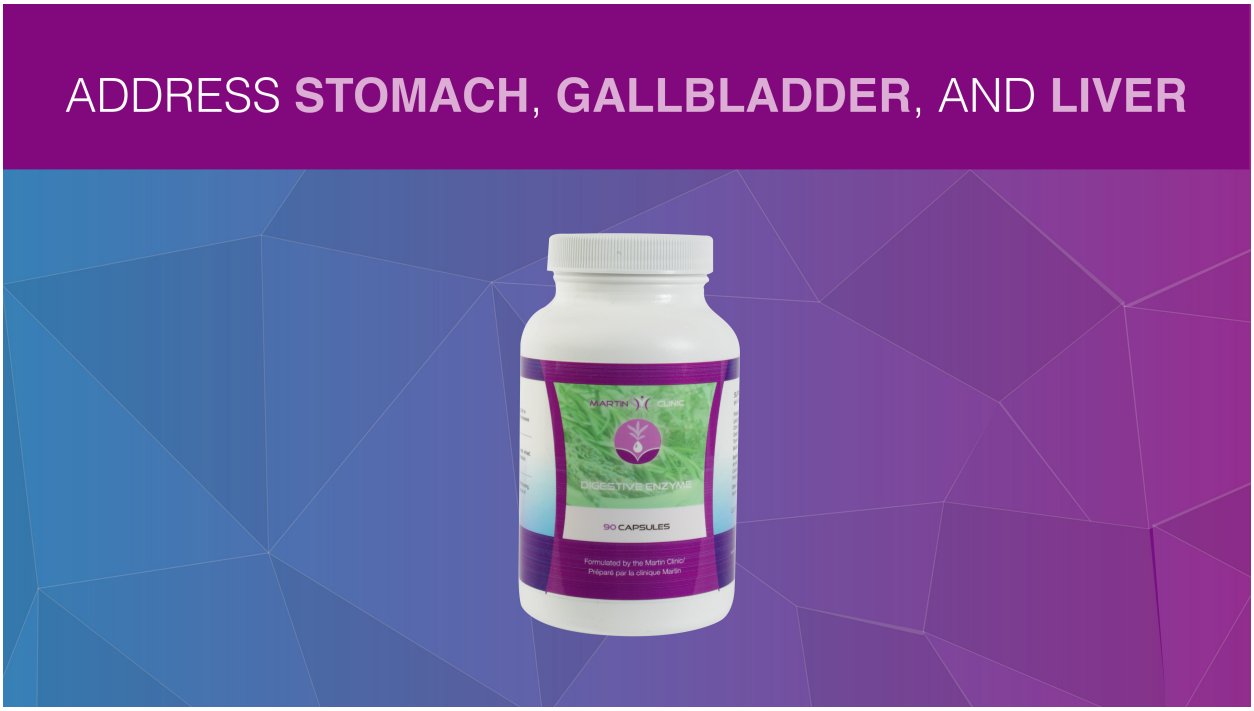
In my opinion, 100% of people with an autoimmune disorder have underlying Leaky Gut Syndrome.

It doesn't matter if you have rheumatoid, systemic lupus, Sjogren's syndrome, chronic inflammatory states…

You have dysbiosis…

Dysbiosis is a fancy way of saying you have more bad bacteria than good, which is a cause of Leaky Gut Syndrome.

It Isn't A Matter Of If You Get Leaky Gut



Syndrome…It's When

How To Treat Leaky Gut Syndrome

In order to properly fix leaky gut, you have to understand what needs to be repaired.

When you have leaky gut, it means there was a failure of your stomach, gallbladder (if you have one), microbiome, and gut lining.

Which means, you need to fix…

Your stomach
Your gallbladder (if you have one)
Your gut lining

AND…

You need to KILL the bacteria, parasites, candida, and viruses causing issues.

Here's our complete FIX YOUR LEAKY GUT plan…

Digestive Enzyme Formula to fix the stomach, gallbladder, and liver

Probiotic Complex to fix the microbiome.

Probiotic Complex and Bone Broth Protein to repair the gut lining.

Candida and Parasite Formula to kill the junk that has taken up residence in your gut.

It's that simple.

Here's everything you need to FIX Leaky Gut Syndrome and RESTORE gut health!